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Admiral Richardson: Welcome everybody. Thanks so much.

Thanks, Tom, for that generous introduction. We do go way back, as Tom alluded to, back to the Naval Academy, fellow physics majors. I copied Tom's papers a lot to get through here, and also rode together. So a lot of time staring at the back of each other's heads in the boat.

So Tom, I also want to thank you and the Foundation for being so flexible with our schedule, in putting this event together.

I'll tell you what, in terms of events there are, as I've said a couple of other times, they go in three categories. You get a lot of invitations, a remarkable number of invitations. There are some that you don't want to do and you're not going to do. You just sort of say no. Then there are some that you'd rather not do but you probably have to do, and so you say yes reluctantly. But then there are some that you're really sort of out shopping around for. That you really want to do. And this was one of those events. I'm eager to be here, and I want to blast through, just looking around the crowd, there are people that know as much or more about naval strategy than I do in the crowd. And I want to get through my remarks as quickly as possible, get to the question and answer period, which I think will be a lot of fun.

Again, it's a pleasure and a privilege to be here at Heritage. The Foundation itself has a firm reputation for supporting national security and the Navy in particular.

Let's start, before I get into my remarks, just a quick operational update. As I speak to you now, my brief this morning showed that we have 92 ships forward deployed in the United States Navy today; a little more than 60,000 sailors forward deployed. That includes two underway carrier strike groups and of course the Ronald Reagan carrier strike group, the forward deployed strike group in Japan. Two amphibious ready groups with their embarked Marine expeditionary unit. Of course those strike groups come with their embarked air wing, which is really the fighting arm of the carrier. Fourteen attack submarines deployed today which is a bit of a high point. Our normal force offering there is between 10 and 12 normally.

SSBNs on patrol, as they have been 100 percent of the time since 1960. That's an important part. Maintaining that alert status is an important part of our program going forward. We have six cruisers and destroyers on [BND] station.

So as Tom said, our discussion today comes at a critical time for our Navy as we face a very dynamic and changing maritime environment, and it comes on the cusp of some important sort of annual events as well, as we get ready to release the budget for '19. Obviously I won't discuss the details of that here until that's released, but it will be talking about some of the strategic underpinning that informs that budget.

And as we're talking about strategy, another reality is that the National Security Strategy has just been recently released, as has the National Defense Strategy just a couple of weeks ago. Secretary Mattis in that strategy provides a much-needed framework. In fact if you think about the Navy the nation needs, there's sort of an ellipsis at the end, dot-dot, for what? Well, the Navy, the nation needs to fulfill the maritime responsibilities in the National Defense Strategy. So we have one strategy for the department, that is the NDS, and this could be seen almost as part of the maritime component of that strategy. So we're using the tag line, the Navy the nation needs.

So we'll get through a quick discussion of the security environment, and then we'll get to questions.

So I thought I would throw up a couple of charts. I don't want to get too heavy into the charts. This room looks a lot bigger on the pictures, so it's kind of an intimate setting. I don't feel too bad spending some time on a couple of charts.

If you look at a map of the world, this isn't an uncommon format for that depiction, right? So you see a lot of geography. Most of the political maps that you see are maps that focus on the land part of the globe. So you've got both the political and geographic things represented here -- cities, towns, roads, those sorts of features. It's not uncommon, as I said.

Then there's this blue stuff that connects it. I will tell you that this is kind of how I see it. So I start with the blue. In fact it's not that. That's just the template on which I see it. I see more like that, which is a depiction of just how busy things are in the maritime and getting busier all the time.

We'll talk in the context of the return to great power competition this morning, and by virtue of that word return, we'll go back to the last time we were in great power competition and just make some comparisons. I would say it's just not a rerun of that last time. I would say the last time we were in great power competition was on the order of about 25 years ago, the Cold War.

Since that time, in the last 25 years or so, maritime traffic, just ships on the ocean, has increased 400 percent. And if you consider the fact that people have been going to sea for tens of thousands of years, ten thousand years is probably not a bad estimate, to see a four-fold increase in the last quarter century, think about what that means for us in terms of just managing that amount of traffic. And it's fueled roughly doubling of the GDP of the globe. So a lot of that prosperity has been manifested in the naval by maritime traffic.

Mega cities continue to grow. Expected to grow from 31 to 41 by 2030. The vast majority of those mega cities within 100 miles of the coast line.

We're turning to the sea more and more for our food, our sustenance, both carbohydrate and protein. And aqua culture, as it's called, has increased 13-fold and is expected to continue that way going into the future.

On this chart are depicted a number of things. You can see in white there are the sea lanes. These diamond shapes are just another feature of the dynamism in the maritime domain as are the purple shaded areas. Technology has given us access to resources on the sea floor that we just simply never had before. So now we've got access to oil, natural gas, other natural resources, minerals.

The lines that run roughly parallel to the sea lanes, but they're colored in gold or orange, signify the undersea cable network. This is this infrastructure that's under sea on which rides about 99 percent of international internet traffic.

So when we talk about a cloud, we're really looking in the wrong direction, from my standpoint. A cloud, you look up. Most of that information is in the sea. We should be talking about a lake. So help me there. I'm just trying to change the whole -- it's not cloud computing. Lake computing. Okay?

And then another thing that's depicted here are the polar ice caps up near the top of the chart. Those are the smallest they've been in that period of time, in that 25 years since the last time we've been in great power competition, giving rise to, again, access to more resources, giving rise to sea lanes of communication that simply just weren't there before.

So given these dynamics in the maritime and others, a balance strategic approach is more important than ever. And our priorities have been very clearly defined by the National Security Strategy which directs us to protect America, promote American prosperity, preserve peace through strength, and advance American influence throughout the world. And the National Defense Strategy picks up, describes the imperative for confronting these challenges head on. We're going to compete, we're going to deter and we're going to win. Centered on three major lines of effort which are to build a more lethal force, to continue to strengthen our alliances and even attract new partners. So expand and deepen those alliances. And then to look to reform the department in terms of the way that we do our business and acquire the material with which we do our business.

So this is also the handing off point. The Navy the nation needs picks up that agenda, that call to action. And I want to talk just quickly in terms of how I see defining naval power.

There's been a good consensus, including the consensus by the Heritage Foundation and many other studies over the last roughly two years, that have all converged on the conclusion that we need more naval power to meet our responsibilities to the nation. So I want to talk about the concept of naval power. I'm going to break it down into a few dimensions. Dimensions that hang together. It's very difficult to talk about coherent naval power if you start stripping these out and disconnect them from one another. You must keep them in balance to provide this sense of integrity or wholeness.

So one dimension, one way to increase naval power is just to build a bigger fleet. A number of those studies that I alluded to talk about that capacity. And in fact all of those studies converged on a Navy in the neighborhood of 300-355 ships. Our force structure assessment did that, and there were a number of other studies that went that, and the Congress picked up on that, and the National Defense Authorization Act has a statement in there that we will do everything we can to achieve a 355 ship Navy subject to appropriation and authorization and all those things.

So this idea of the numbers of platforms. Not a great leap of intuition that a bigger Navy is a more powerful Navy.

A second component, a second dimension of naval power would be to build a better fleet. So if you modernize each one of those platforms in other ways, with better systems, make each one of those things more capable, then that means each one being more capable, but they sum up also to more naval power. A more capable fleet. And we're actually on the cusp of some very intriguing technologies that would not only increase our capability, I would think very much, but also could do so and get us on the correct side of the cost curve. So I'm looking hard at things like directed energy, high power microwave, lasers, electromagnetic maneuver warfare, and other innovative ways.

Also in this better fleet, this capability dimension, we might want to consider things like unmanned. So depending upon how we think about unmanned, some of those unmanned platforms may be kind of in the platform dimension. Many of them here in the capability dimension. So we're looking hard at building out our family of unmanned underwater systems, surface systems, and air systems.

A third dimension of naval power as we think about it is to take those platforms with their inherent capability which we can increase, and then network them together. So this third component is a networked fleet.

So we have sort of a bigger fleet, a more capable fleet, and now a networked fleet. And there are plenty of examples in history where just the power of networking things together creatively, adaptively, brings actually more power to that force. So we can talk about some of those historical examples. But it makes intuitive sense, as well. It sort of checks with the chart that if you're able to share data more across the force, you're able to respond to that awareness with more agility, you can be a more powerful fleet.

Not talked about enough is what I'll call the fourth dimension which is a more talented fleet. If you think about growing these other dimensions, growing naval power, at some point we're going to have to man that fleet with sailors and so there's also sort of a number of sailors dimension, but also the skill sets with which those sailors are going to need, different than the ones we have right now.

So particularly as you think about, let's go back to that networked fleet. We're talking about sharing and assimilating, sifting through vast amounts of data that come from growing sensor networks and such. As we get a bigger fleet, okay, we're going to need more sailors. As we get a better fleet, we're going to need sailors that are trained a little bit differently than we train them right now. Those systems demand different skills. As we consider a networked fleet, we're going to need some help. So this is the realm of artificial [inaudible], leaning algorithms, figuring out the optimum way to team together the people, our sailors and machine assistance, to be able to sort through that amount of data, and get to those decision-relevant bits of information as quickly as possible. Competing in that orient and decide part of the Oodaloop, so that we can beat the competition in that part of that loop.

A fifth dimension is what I'm calling the agile fleet. This is an appreciation for the concepts of operations with which we operate that fleet. The C2 structures with which we command and control that fleet. So once we have built this fleet, we've modernized it, we've networked it, we've manned it with appropriately trained sailors, with the assistance they need, we've got to figure out how we're going to operate it. And there's always, as you know, a dynamic tension between sort of the technology that's available to the fleet and the ConOps with which we operate that fleet. Maybe it's an interplay is a better way to describe it. As more possibilities become evident through technology, then you adapt your ConOps, that feeds back to the technology space to say if I only had this I could do so much more, and so there's a great reinforcing dynamism.

So as we consider things like distributed maritime operations, we're really looking for a fleet that much more leverages the global maneuver power that is inherent in the Navy. So as you think about this type of an environment, the only thing that really structures that environment are natural choke points. And some of those have been around since the United States Navy started 242 years ago. And you can see them up there. Gibraltar, the Suez, the Bab al Mandeb, the Strait of Hormuz, the Strait of Malacca. All of these choke points sort of define our structures. What it is not responsive to is artificial lines. So combatant commander boundaries and those sorts of things.

We have to make sure that we preserve the inherent agility of the Navy as it maneuvers. We don't think so much in terms of

where a particular naval capability is. Not only where it is,
but then it's only a few days away from wherever it might need
to be. Okay? There's this idea of tethers rather than a one or
a zero presence. All right?

Final dimension. This is getting complicated. The only thing I
could have done worse is to have every one of these things on a
slide.

The final dimension is, everything I've talked about right now
is sort of a fleet in being. Potential energy, if you will.
Until you get that force out and you train it, this is the ready
fleet.

Turning all of that potential power, that potential energy into
kinetic energy requires readiness, and that means you've got to
go out, you've got to steam, you've got to fly. You've got to
have your magazines full. You've got to have your logistics
element in place. You've got to have your parts. You've got to
do the maintenance. All of those things bring that fleet to
light, if you will, and turn it into actual energy, actual fleet
capability.

So I hope I've painted a picture of naval power composed of
elements. It is that wholeness, right? Unless you have all of
those elements present, they're not talking the full
dimensionality of naval power. And if you think about just
naval power in its entirety, it moves us away from some of these
I would call them false choices that we often get tangled up in
in our conversations.

So if we think about capacity versus capability, well, certainly
there may be some tradeoffs there but they both contribute to
naval power. They're both needed to be truly powerful in the
maritime domain. Stand-alone technologies versus network.
Mission command versus networked command. It's both, and you've
got to navigate your way in that space dynamically.

So there's these tradeoffs that when you think in terms of naval
power, we can elevate our thinking above these false choices and
concentrate on what's important.

I'm going to just go nuke on you for a little bit. It's like
the nucleus of an atom, right? And if you've got the pure
element, all the parts of that nucleus are there. So if you
think about those six dimensions -- a bigger fleet, a better
fleet, a networked fleet, a more talented fleet, an agile fleet

with agile concepts of operations, agile command and control, and then a ready fleet -- those are the components of the nucleus. If you try and tear one out, you don't have naval power, you have some isotope of naval power, right? Something that's close, but not really complete.

As you all know, because I know you've done your nuclear homework, these isotopes are sometimes unstable, sometimes they decay, et cetera, right? It's not the stable element that we want. Not the true thing.

As we talk about strategy, sort of a strategic overview, the strategic components of naval power, my aim is to sort of give you a view through the telescope, not a microscope. Too often we try and get down into the microscopic detail and you can miss the strategic direction, the strategic imperative.

As long as we're doing that, I think we do need to take a step back and appreciate another dimension that we have to contend with, Tom alluded to it, and it's, well, we can just sort of summarize it by appreciating the last 18 months of fiscal year '17 and '18.

During that time we have the longest CR and the fourth longest CR. We have two Continuing Resolutions in that period of time, in the top five in terms of length, one of them, the longest of all time. During that 18 months we've operated five months with an active budget. The rest of the time it's been on Continuing Resolutions. We currently have really no top line, and a government shutdown, just went through that.

This type of dynamism also impacts strategic planning, degrades the industrial base, and has a strategic effect on not only the Navy the nation needs but the national security that we need.

And most importantly, perhaps, I will tell you that working through this squanders the most precious resource which is time. We're spending time managing through this churn rather than getting on with the strategic direction we need to maintain.

Before I come to a close, I talked about command and control. As we move into this great power competition, as we build a more lethal Navy, as we build more ships, more advanced technology, talented sailors. None of those by themselves are sufficient to respond to today's complex challenges without commanding officers of ships that are focused on competition, focused on building teams that can go out there and compete and win.

So just as we have done throughout our history, we're going to continue to focus on developing commanding officers who are almost literally obsessed with building winning teams. Teams that can compete and win again and again on a sustainable basis. That is our business. As I said at the Surface Navy Association, in many ways I envy our sister services, our ground services, because they can go to places like Gettysburg and they can walk the ground. So many of the features of that battle are still resident there. You can see the terrain, say for instance Pickett's Charge, Little Round Top, et cetera. In our business the winners sink and the losers sail away, and in our business we want to be that Navy that sails away.

So let there be no doubt in times of triumph, times of turbulence, rough seas, calm seas, our Navy's operating around the world to secure our interests, protect America from attack, protect our prosperity, our influence around the world, ensure our way of life which has always been linked to the sea in the United States. We are a maritime nation. We hope that by virtue of this construct we'll build the Navy the nation needs. A safe Navy for our sailors; a reassuring Navy for our partners; and a lethal Navy for our enemies.

With that, that's the end of my prepared remarks and I am eager to take your questions. Thanks very much.

Moderator: Thank you, Admiral. Some wonderful remarks there, again, focusing on the National Defense Strategy and your six dimensions there.

Kind of following up on that, one of the things I see, hearing your remarks and having read the public version of the National Defense Strategy and your piece for a more agile ConOps, do you see what the guidance says, increased operational predictability, this dynamic force employment, military posture and operations. How do you see this driving how the Navy's going to train and deploy when you see this changing how we kind of forward deploy some of our forces, both in the Pacific and in the Europe region?

Admiral Richardson: Did you say dynamic predictability or unpredictability?

Moderator: Unpredictability.

Admiral Richardson: I think that going forward, again, you sort of keep that naval power thing as your North Star. So as we move forward, one of the things that we're going to focus on is making sure that whichever forces we deploy, for whatever missions they are assigned, they're going to be completely ready and certified to be able to go off and do those missions. So we'll establish sort of the maximum level of forces that we can generate and offer to the combatant commander.

Then in terms of how we employ that force once it's out there, a very fast-moving train in this regard. So as we train, certify and deploy strike groups, it goes back to some of these ConOps and technology that they're bringing with them, really a very dynamic environment as we move forward into this new competitive arena that we're entering.

I think that unpredictability for our competitors is good. As long as it's sort of strategic predictability, it ends up reassuring our allies and partners. So we just have to figure out how that goes. Always with this becoming sort of a more lethal, more reassuring Navy as our guiding force there.

Moderator: Thank you, sir.

Another thing that ties into what you said of the nucleus and having all the parts that you have to do.

Admiral Richardson: Was that too technical?

Moderator: No. I was geeking out on it. Some of the audience may not have. Chairman Whitman wrote in Navy Times a couple of days ago, one of the things he tied in there, he said the Navy needs more ships, more resources, and more time to complete maintenance and training in order to operate the necessary pace the Navy requires.

The administration and Congress have both supported the 355 ships, as you said, so we need a bigger Navy. But also as we're seeing, we need to restore that fleet readiness.

Those two demands, kind of both in the resources piece, how do you see yourself able to, working with SecNav, to simultaneously build the fleet and restore readiness and provide that time?

Admiral Richardson: First of all, the Secretary of the Navy has been completely, he's actually out in front of this, so he's leading us down this path. So it's been just terrific to get to

know him more and to work closely with him and to sort of make his vision real.

And as we do that, it is sort of, you've got to keep this concept of wholeness in mind. So as we build more naval capacity, with that comes the needs to make, keep that whole, right?

The only other consequence is that we build something, if we don't integrate that wholeness from the beginning it just becomes sort of a wait and fill later on. Really down at the waterfront, at the fleet commander level, they have to deal with that imbalance.

So we've taken on a much more holistic approach to putting that program together, always mindful that as we increase capacity, as we increase capability, the rest of those other five dimensions, if you will, the readiness has got to come with it. We've got to invest in that as part of the total ownership cost of the Navy.

This gets to that isotope thing. If we start to disassociate those we end up with problems. Things that are built that aren't ready to go.

Moderator: Not enough sailors and modernization.

To tie up what you said about the five of 18 months, that we've only had a budget the rest of the time under a Continuing Resolution. And in some of your recent testimony you said on a scale of one to ten, you said stable and adequate funding was an 11 on that piece. Are there some key issues that have had the impact of, given the current CR, on maintenance and [inaudible] you see in fiscal year '18?

Admiral Richardson: Absolutely. In fact maintenance might be one of the things that takes one of the biggest hits. Doing particular deep maintenance no a naval vessel, that's a big undertaking. It requires planning, it requires anticipating, you've got to get started on that early to do it right to get, to hire the appropriate workers, to buy the appropriate material. All of those things that go into properly maintaining. And we do a lot of modernization in those upkeeps as well, to keep those ships relevant in the threat environment they operate in.

So when you have these sort of fits and starts, these uncertainties, you can't write a contract unless you've got the funding to back that up. So these sorts of things really slide right. They kind of bow wave to the right. Again, you sort of lose that most precious resource, which is time.

Planning can get short-changed. The materials don't come at the optimum cost. Workers are very difficult to hire. And some of the talented workers say hey, listen, this is just too volatile for me and I'm going to go some place where it's a little bit more stable. So a lot of that talent leaves the work force, and may not come back. So it really starts to have a toxic effect.

Moderator: I agree. I think of the public doesn't understand the impact of taking these operational ships out of commission for maintenance periods for sometimes years at a time really reduces that number you have available to deploy.

Admiral Richardson: You hit it exactly right. If you think about naval power, a ship that can't go out to sea because it's not maintained, that's not a ship that's delivering naval power because of that reason.

Again, the importance of keeping that naval power thing as your front and center goal helps you see that.

Moderator: One thing I want to tie in is that the recent year, issues with the surface naval force. You had Fleet Forces Command conduct a comprehensive review, and SecNav had the Strategic Readiness Review. The question I have for you is yourself, and now with Vice Admiral Brown, the new Commander of Naval Surface Forces, what do you see, there's a lot of corrective actions, a lot of things that you've already implemented.

What do you see as kind of the most important corrective action to have the quickest turn and biggest effect of fixing those issues?

Admiral Richardson: There's a number of things that are kind of moving in parallel. Some of them are moving at different speeds. Some of them are very immediate, some of the kind of training things that we can do right away. They don't require a lot of investment, they don't require a lot of time. So we can get at those fairly urgently, and in fact a lot of that is already done.

If you back up, I think the idea of identifying and sticking to the process for force generation. Maintenance, training, certification strokes that need to happen on a predictable, well, at least a routine base. So you've got to stock to that plan, if you will, so that you've got that force generation piece in place before you send those forces to sea to execute missions. I would say that's sort of the biggest idea.

Now there's a lot of components to making that happen. There's command and control implications and training implications, et cetera. But I would say that that's sort of the big idea behind the comprehensive review and the Strategic Readiness Review.

Moderator: Thank you, sir.

Tying into one of the things you said, one of your pillars there of this increasing capability. I think it also ties into what the National Defense Strategy said, reforming the department. I guess I'd ask for your ideas that you have yourself with the new Assistant Secretary of the Navy for Research, Development, Acquisition, Secretary Geurts and SecNav, of how are you going, what are you implementing, what are some of the things you see to speed up innovation and to field some of these new capabilities more rapidly to the fleet, how that's going to happen.

Admiral Richardson: First, Secretary Geurts has brought just a tremendous amount of energy and insight into the business, coming from SOCOM where he's been the acquisition executive down there. Again, this new team that's forming is really terrific.

The thing that we have been doing, I would say one of the most important things is that we're starting to have meaningful conversations with industry and the research and development business earlier on in the process. Right? So the idea is that we're just going to have a system that can get to the sweet spot between requirements, what is technically achievable at a maturity level where I can make some predictions about cost and schedule, that I can stick to. And then take that stroke, make that move. That might involve some prototyping and those sorts of things. We'll get through that phase fast, and then get it to the fleet as fast as we can. So this accelerated acquisition program that we've got.

Then even as we're delivering that step, Tom, we want to make sure that we are thinking about the next step already. So we get into these fast iterations of capability increase, informed

by what is technically achievable, that allows us to ride that technology curve a lot closer.

Now we're got to quicken the pace, right? We've got to be doing those iterative steps a lot more quickly than we are right now, so we're starting to do that. So as we think about families of underwater unmanned vehicles; families of missile systems where we're moving forward. The NQ-25, our unmanned carrier-based aircraft, has been moving quickly. I would say that they new frigate is adopting some of those features as well. And then I look forward to leveraging all of that into a future service combatant. So there are a number of different things that we're doing. This directed energy business that I talked about at the podium. All of those things are kind of in the fast lane, using these new techniques. And then Secretary Geurts is educating us all about other ways to get this done as well.

Moderator: Tying with that, specifically you mentioned in your remarks talking about artificial intelligence, machine learning, that unmanned team, how it can help that Oodaloop. And also the integration of unmanned systems in there.

With so much of that work in research and development having, along with systems out in the commercial world, is how is the Navy integrating with the commercial industry to bring in their ideas and kind of insert their technology?

Admiral Richardson: We work with a lot of commercial partners, private sector partners. This is a matter of routine. That's not anything new, really. It's bringing the team together earlier, is really the key. A model where we would have maybe a set of requirements officers locked in a room until they come up with their set of requirements, you know, white smoke comes out and they come out with okay, here it is. Right? Here's the thing. Industry takes a look at that and says well that's terrific except there's nothing that can do that right now. I've got to go invent that. That's time and uncertainty and translates to money.

If you bring sort of the technologists in, then you can do some really good work to find something that's executable. And then again, Tom, you've got to have that fast iteration in place as well.

I'll tell you, a very rich part of that, and it's I think indicative of a shift of some parts of the innovation base in the country where it maybe used to be all DoD led, classified,

et cetera. A lot of times the leading agent, the leading edge
of that is out in the commercial sector. We just have to be
fast followers, fast adopters. And so depending on what we're
talking about, we have to be agile to respond to both.

Moderator: Thank you, sir.

I don't want to take up all the time with my questions so I'd
like to ask for questions from the audience.

Audience: [Inaudible].

Admiral Richardson: And a current giant naval thinker, right
Rodney?

Audience: I didn't say that, sir.

Admiral Richardson: Well, I did.

Audience: Thank you very much. And thank you for your comments
today.

You began, as you often do, by talking about the number of ships
that are deployed. Roughly there are about the same number of
ships deployed now as there were during the Cold War when we had
a Navy that was at least twice as large, if not more than twice
as large.

I guess the essence of my question is going to be, are we, I
still say we. Are we trying to do too much with too little?
And a few threads there.

Bob Work has written and commented over the past several months
that we should possibly deploy fewer places, deploy less often,
and concentrate on the high-end threat.

When Admiral Rowden spoke at SNA a couple of weeks ago, just
before you did, he said the solution to some of the problems
that the surface force faces is more ships, but it takes a long
time to build more ships; and more time, fewer distractions. I
don't know if he used the word distractions. Obligations, I
think he said. Fewer obligations.

Admiral Richardson: I would say an obligation is different than
a distraction.

Audience: And I agree with that. Obligations.

And then when you spoke a couple of hours later you said one of your responsibilities was to, I think to lessen those obligations, or maybe to remove distractions.

It comes down, at the end of the day, I think to not doing too much with too little. How do we free up the Navy, as Bob Work has suggested, to concentrate on the high-end fight? How do we have more time for training to make sure that when ships do deploy and they deploy to the right place, that they're ready to go? So are we trying to do too much with too little?

Admiral Richardson: Right. It's sort of the fundamental question, right? Some of those ratios that you described in terms of number of ships deployed versus the number of ships in a battle fleet. Some of that can be achieved, because we actually do get more efficient and we build some of that efficiency in. But we're seeing that you've got to be careful. You can go too far. You can stretch too thin.

So the art here, and maybe it's not even an art as much as a science, is to figure out what is that sustainable level? And that's work we're checking right now. So that we don't reach that point where it's an unsustainable pace. So that's kind of at the most fundamental level.

Generally what you have in this force generation business, is you have a cycle, and the Optimized Fleet Response Plan is an example of one of those cycles where you have a period of that cycle where you're preparing and readying the force; and then you have a period of that cycle where the force is ready and certified and it goes off and sustains that readiness in operational contexts.

So again, I go back to naval power. A more lethal Navy.

If you think about what we do to employ that force, always with increasing lethality in mind, it might change how you employ that force.

So if you're going to forward deploy, let's make sure that we're getting something real measurable out of that time on station, that when we do that we've got a mind towards maintaining that readiness that we have invested in and built up. And then maybe we bring it back and we do a high-end exercise in the Virginia Capes areas with the aggregated strike group. And the combination of that not only makes us I think less predictable,

but also in the aggregate might make us more lethal as a fighting Navy, particularly at the aggregated level.

Then finally, you talked about distractions. I take it down to the very personal level. Right? What are my officers, chief petty officers, sailors, doing with their time on a day-to-day basis? I want them always coming in thinking about okay, on the drive into work or as they're getting ready to go on watch at sea, what am I going to do today to confound our enemies, our competition? And at the end of the day, as they're driving home or before they put their head down on that rack they can say, what did I do today, and what might I do tomorrow?

And if we can remove any distractions from that focus, and this stuff sort of builds up in non-competitive environments or less competitive environments. We've really got to cut through that.

So we're starting to take a look at the collateral duties that have accumulated and slashing some of those so that we can get our leaders down at the deck plate level, at the personal level, more time to focus on leadership and command and those sorts of things.

So all the way from sort of the largest Navy down to sort of the fighting element down to the personal level, we're trying to remove those distractions.

Audience: Meghan Eckstein with USNA News.

To go back to Tom's question about how the budget environment affects your ability to kind of keep that nucleus together. NAVSEA has talked about how they're now contracting for modernization periods with multiple-years money, rather than maintenance availabilities where it's one-year money. Are there other ways the Navy's sort of adapting how it does business to keep that nucleus together with the kind of weird budget environment? Or are you really stuck in some areas where you just need stable funding?

Admiral Richardson: We do need stable funding, right? But the system has adapted, Meghan, as you know. And I wouldn't say in completely healthy ways, but sort of ways to just kind of get business done.

For instance, we don't put a whole lot of important things at risk in the first fiscal quarter. Right? Because we rarely have a budget there. It's been nine years and we haven't had

one. And so we sort of minimize risk there. We're coming up on Super Bowl Week and I know that everybody in the room has a position on that competition, but I know that competition that's that close, you can't expect a team to win if they only play three quarters out of four. Right? And that's kind of what our fiscal environment is asking us to do in many ways.

We talked about the time penalty. There's the staffing penalty. A lot of the contracts that we talked about have to be written twice for those periods of time.

So we're adapting, but it's really, you can do some things, particularly with multi-year money, but you have to be very, we have to have this dialogue with Congress and make sure that we just have a meaningful discussion about this so that nobody's surprised.

We have on our side an obligation to prove our reliability, I suppose, as we move forward. So we do the best we can, I think, to try and get after that.

Also, going back to this wholeness concept. The way that we bring the program together starts with our strategic direction, and then we've got a very integrated approach which includes keeping that nucleus intact all the way through the process. And then at the end, we check our homework, right? So if we started with a particular vision in mind, it goes through all the machinations. We want to make sure that the thing at the end of that process looks like what we started with. So that process, and getting all of our leadership connected very closely with the fleet helps us to keep that in balance so that when these things happen, we can with much more agility navigate the trade space of whatever the budget environment sends us.

Audience: Leigh Hudson, Inside the Navy.

You mentioned earlier about how Congress authorized 13 ships in FY18, and I was hoping you could talk about --

Admiral Richardson: I'm not sure I did say that, but anyway.

Audience: I thought you did, that they put in, but they didn't appropriate the funding. I thought that's what you said. But anyway, so I wanted to hear the concrete steps the Navy has actually taken to grow the fleet. And I know that the President mentioned on the campaign trail the 350 ship Navy. If you could give examples of that.

Admiral Richardson: I think a lot of that is pending, right? When we get an '18 budget and then the subsequent budgets, we'll just, I think that's news still to come. It would be premature to talk about it now.

Audience: You spoke at length a little bit about strategy towards the end of your prepared remarks there. A two-part question with that. Where, you talked about maritime choke points. One of the most important ones is the GIUK Gap which I know is one of the issues that the Navy faces right now is that it is vastly understaffed at the moment and there's not really a NATO strategy at the moment with regards to the North Atlantic to combat incursions from the Bering Sea. And so I was curious where that plays into the strategy going forward.

Also, where does the LCS program and the Zumwalt destroyer program going forward play into making that a more technologically advanced Navy, but also one that obviously is prepared going forward to meet those fast, agile requirements which you mentioned as well.

Admiral Richardson: Two completely different questions. It's not a two-part question, it's really just two questions. Well played.

With respect to the North Atlantic and sort of the resurgent Russia challenge, I don't know if I would agree that we're vastly understaffed for that, particularly in undersea force which is the GIUK Gap, if that's what you're talking about there. We enjoy a window of superiority that's really fact and evidence based.

NATO, I think, is addressing these challenges as well. And so I talk very often with both General Scaparrotti and Clive Johnstone, [MARCOM]. So that's a dynamic and responsive environment to this emerging threat in the maritime domain. So I'm actually pretty optimistic that that is responding with agility.

With respect to these combatants that you mentioned, they've got a big part in our future Navy, both the LCS, small surface combatant moving to a frigate, and then also the Zumwalt. So both from a technological standpoint in terms of moving us forward, but also in an operational employment standpoint, we've done a lot to rationalize the LCS program. Make each one of those platforms as lethal as we can. They're going to play

important parts of our Navy going forward. Each one has become more capable on delivery with fewer problems. So we're coming through the engineering and design issues. As we do with every single new ship-building program, we sort of learn our way forward.

So those are going to play a big role, particularly with that agility part. And each one of those platforms plays its role in the team, right? We don't need to make every ship do everything. So they'll be employed sort of consistent with our capability.

Moderator: We're out of time today, but I thank the Admiral for coming today. And I thank everyone in the audience for joining us today.

Admiral Richardson: Thanks, Tom.

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